

## DECLARATION AND POWER OF ATTORNEY

We, the below named inventors, hereby declare that:

Our residences, post office addresses, and citizenships are as stated below next to our respective names.

We believe we are the original, first, and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled LOW DISTURBANCE PULSATILE FLOW SYSTEM, the specification of which was filed with the United States Patent and Trademark Office on March 13, 2001, as Serial No. 09/804,936. This application claims priority under 35 U.S.C §119 (e) from United States provisional Patent Application Serial No. 60/188,723, filed March 13, 2000.

We hereby state that we have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

We acknowledge the duty to disclose information which is material to patentability in accordance with Title 37, Code of Federal Regulations, Section 1.56.

We hereby declare that all statements are made hereby of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

And we hereby appoint:

Maurice E. Gauthier	- Reg. No. 20,798
I. Stephen Samuels	- Reg. No. 20,919
Richard L. Stevens	- Reg. No. 24,445
Matthew E. Connors	- Reg. No. 33,298
William E. Hilton	- Reg. No. 35,192
Patrick J. O'Shea	- Reg. No. 35,305
Arlene J. Powers	- Reg. No. 35,985
Richard L. Stevens, Jr.	- Reg. No. 44,357

all of the firm of Samuels, Gauthier & Stevens, our attorneys with full power of substitution and revocation, to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith.

We request that all correspondence be directed to:

Samuels, Gauthier & Stevens, LLP  
225 Franklin Street, Suite 3300  
Boston, Massachusetts 02110

Attn: Matthew E. Connors

\_\_\_\_\_  
Elazer Edelman

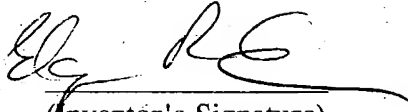
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June 21, 2001  
(Date)

\_\_\_\_\_  
USA  
(Citizenship)

\_\_\_\_\_  
Kumaran Kolandaivelu

\_\_\_\_\_  
June 21, 2001  
(Date)

\_\_\_\_\_  
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(Citizenship)

  
(Inventor's Signature)

30 Warren Street  
Brookline, MA 02445  
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249 West Newton Street  
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UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SEPTEMBER 04, 2001

PTAS  
SAMUELS, GAUTHIER, STEVENS & REPPERT  
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225 FRANKLIN STREET  
BOSTON, MASSACHUSETTS 02110



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UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 06/25/2001

REEL/FRAME: 011920/0894  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
EDELMA, ELAZER

DOC DATE: 06/21/2001

ASSIGNOR:  
KOLANDAIVELU, KUMARAN

DOC DATE: 06/21/2001

ASSIGNEE:  
MASSACHUSETTS INSTITUTE OF  
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77 MASSACHUSETTS AVENUE  
CAMBRIDGE, MASSACHUSETTS 02139

SERIAL NUMBER: 09804936  
PATENT NUMBER:

FILING DATE: 03/13/2001  
ISSUE DATE:

ALLYSON PURNELL, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

06-27-2001

MIT7961

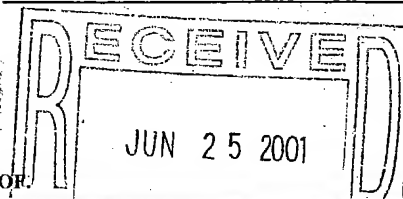


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HONORABLE COMMISSIONER OF  
PATENTS AND TRADEMARKS  
WASHINGTON, D.C. 20231

SIR:

PLEASE RECORD THE ATTACHED ORIGINAL DOCUMENT(S) OR COPY(IES) THEREOF.



6-25-01

## 1. NAME OF CONVEYING PARTY(IES)

Elazer Edelman &amp; Kumaran Kolandaivelu

Additional name(s) of conveying party(ies) attached? No

## 2. NAME(S) AND ADDRESS(ES) OF RECEIVING PARTY(IES)

Massachusetts Institute of Technology  
77 Massachusetts Avenue  
Cambridge, Massachusetts 02139

Additional name(s) of receiving party(ies) attached? No

## 3. NATURE OF CONVEYANCE

- ☒ Assignment  
☐ Security Agreement  
☐ Merger  
☐ Change of Name  
☐ Other

Execution Date:

6/21/01

## 4. APPLICATION NUMBER(S) OR PATENT NUMBER(S)

If this document is being filed together with a new application, the execution date of the application is:

A. Patent Application No(s): 09/804,936

B. Patent No(s):

Additional numbers attached? No

5. NAME AND ADDRESS OF PARTY TO WHOM  
CORRESPONDENCE CONCERNING DOCUMENT  
SHOULD BE DIRECTED:

Matthew E. Connors  
Samuels, Gauthier, Stevens & Reppert  
225 Franklin Street  
Boston, Massachusetts 02110  
(617) 426-9180, Extension 112

6. TOTAL NUMBER OF APPLICATIONS  
AND PATENTS INVOLVED: 1

## 7. TOTAL FEE DUE: \$40.00 (Enclosed)

If any additional fee(s) are due, the Commissioner is hereby  
authorized to charge the Deposit Order Account noted in item 8.

## 8. DEPOSIT ACCOUNT NUMBER: 19-0079

## 9. STATEMENT AND SIGNATURE

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy  
of the original document.

Matthew E. Connors  
Name of Person Signing

Matthew E. Connors  
Signature

Date:

6/22/01Total number of pages including cover sheet, attachments, and document: 4

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being  
deposited with the United States Postal Service on the date shown below with sufficient postage as first  
class mail in an envelope addressed to the Commissioner of Patents and Trademarks, Washington, D.C.  
20231.

Deborah M. Costello  
Deborah M. Costello  
Date: 6/27/01

**ASSIGNMENT**

Know all men by these presents that:

WHEREAS we, Elazer Edelman  
30 Warren Street  
Brookline, MA 02445

and

Kumaran Kolandaivelu  
249 West Newton Street  
Apt. 8  
Boston, MA 02116

have made an invention for

**LOW DISTURBANCE PULSATILE FLOW SYSTEM**

described in the application filed with the United States Patent and Trademark Office on March 13, 2001 as Serial No. 09/804,936, which claims priority under 35 USC §119(e) from United States Provisional Patent Application Serial No. 60/188,723, filed March 13, 2000; and

WHEREAS Massachusetts Institute of Technology, a corporation duly organized and existing under the laws of Massachusetts and having a place of business at 77 Massachusetts Avenue, Cambridge, Massachusetts 02139, for the benefit of itself, its successors and assigns, all inclusively hereinafter referred to as the Assignee, is desirous of acquiring the entire right, title and interest in and to the said invention, the said application, all inventions disclosed in said application and any and all Letters Patent of the United States and of all other countries which may be granted for the said invention or inventions, or any of them;

NOW, THEREFORE, for good and valuable consideration provided by said Assignee, the receipt whereof is hereby acknowledged, we do hereby sell, assign and transfer to the said Assignee the entire right, title and interest in and to the said invention, inventions and application, including all priority rights arising therefrom, all inventions disclosed in said application, and any and all Letters Patent of the United States, and of all other countries, together with the right to apply for such Letters Patent, which may be granted for the said invention, inventions or any of them,

TO HAVE, HOLD AND ENJOY the said invention, the said application, and the said Letters Patent, to said

**MASSACHUSETTS INSTITUTE OF TECHNOLOGY**

its successors and assigns, to its and their own use and behoof to the full end of the term or terms for which the said Letters Patent may be granted, as fully and entirely as the same would have been held and enjoyed by us had this assignment and sale not been made.

AND we hereby authorize and request the Commissioner of Patents of the United States and the appropriate officers of all foreign patent offices to issue any and all Letters Patent which may be granted on the said application or applications above referred to, or for the said invention, or any of them, to the said Assignee in accordance with the terms of this instrument.

AND we hereby agree to execute and sign without further consideration any other legal document and any other assignments and any divisional, continuing, renewal, reissue or other application in and for all patents that may be appropriate and may be deemed necessary by the Assignee fully to secure to said Assignee its interests as aforesaid in and to the said invention or any part thereof and in and to the said patents or any of them.

AND we further covenant and agree that we will at any time upon request communicate to the said Assignee, its successors, assigns or other legal representatives, any facts known to us relating to the said invention and any patent that may be granted thereon, and will testify as to the same in any interference or litigation when requested to do so.

AND we hereby covenant for ourselves and our legal representatives that we have not hitherto assigned or granted any license to make, use or sell said invention, and that we will not henceforth purport to assign, license or execute any instrument to that effect in conflict with this assignment.

6-21-01  
Date

  
\_\_\_\_\_  
ELAZER EDELMAN

6-21-01  
Date

  
\_\_\_\_\_  
KUMARAN KOLANDAIVELU